

PROCESS FOR CONTROLLING THE PARTICLE SIZE IN A BAYER
CIRCUIT PRECIPITATION SYSTEM, INCLUDING AN
AGGLOMERATION PHASE

ABSTRACT OF THE DISCLOSURE

Control over the precipitation of an American type BAYER circuit in which the particle size quality of the hydrate produced is monitored by making a measurement of the amount of rotating hydrate passing $X2 \mu\text{m}$,
5 comprising:

- 10 a) a preparation step intended to setup a relation R between the material passing $X1 \mu\text{m}$ and material passing $X2 \mu\text{m}$, where $X1$ is less than $X2$, and then use R to deduce trigger thresholds on the amount of material passing $X1 \mu\text{m}$;
- 15 b) control of the process itself which, apart from the daily measurement of material passing $X2 \mu\text{m}$, includes a daily measurement of the rotating hydrate passing $X1 \mu\text{m}$ and triggering of a corrective action in the slurry at the beginning of precipitation when the measured value of material passing $X1 \mu\text{m}$ reaches one of the regularly updated trigger thresholds determined in the previous step.

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~~Figure 2.~~